

R E M A R K S

Claims 5-12 are now in this Application, and are presented for the Examiner's consideration.

Prior Art Rejections

Claim 5 was rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,937,756 to Kishine et al.

It appears that the rejection of independent claim 5 is only due to a certain confusion in terminology.

Claim 5 of the present application states that each printing unit includes an impression roller and a driven print cylinder. It should be understood that the print cylinder (gravure print cylinder; page 1, line 9) is the cylinder which carries the pattern to be printed. This follows also from the description on page 5, lines 24-25, stating that an ink trough and a doctor blade (for inking the print cylinder) are associated with the print cylinder 34. In contrast, the so-called impression roller (32, 52) does not have the function of a print cylinder but only serves as a back pressure roller which presses the web against the gravure print cylinder (page 1, lines 10-11).

Kishine et al discloses cylinders 4a, 4b and 4c which Kishine et al terms "impression cylinders". It appears that this is the reason why the Examiner has identified the impression cylinders 4a, 4b and 4c of Kishine et al with the impression

roller according to the invention. However, Kishine et al seems to use the terms "printing cylinder" and "impression cylinder" as synonyms, as is concluded from column 1, lines 33 to 42. In Kishine et al, the term "impression cylinder" has the meaning of print cylinder, and, of course, these impression cylinders or print cylinders are actively driven, as is stated in column 3, lines 48 to 51.

Specifically, in column 1, lines 33 to 38, it is stated that the printing cylinders have to be changed upon variation of longitudinal size, that is, the printing length which is determined by the finishing diameter of the printing cylinder. However, in column 6, lines 1 to 4, there is a discussion of replacement of the impression cylinder for varying longitudinal size. This shows that the two terms are indeed used as synonyms. Further, since it is the printing cylinder and not the back pressure roller which determines the longitudinal size of the printed image, it would not make sense to replace the "impression cylinder" if it were not a printing cylinder.

As shown in Fig. 2 of Kishine et al, the web W passes through a nip formed between the so-called "impression cylinder" 4a and another roller which has no reference numeral and seems to serve as a back pressure roller. In Kishine et al, it is this back pressure roller, having no reference sign, that should be identified as the "impression roller" according to the present

claimed invention.

Therefore, it is submitted that Kishine et al does not disclose or suggest driving of the impression roller.

However, even if Kishine et al is determined to show driving of the impression roller, it is an important feature of the present invention that both the print cylinder (as is conventional) and the impression roller or back pressure roller are actively driven, and the web tension is regulated by driving the impression roller.

Kishine et al fails to disclose or even remotely suggest the active driving of both the print cylinder and the impression roller.

According to Kishine et al, the rotation speeds of the actively driven print cylinders (which Kishine et al incorrectly refers to as the impression cylinders) are adjusted in order to adjust the web tension (column 2, lines 35 to 47), but Kishine et al does not disclose or suggest that the back pressure cylinders (no reference numeral) would also be actively driven. In like manner, if the Examiner takes the position that Kishine et al correctly refers to the impression cylinders and drives the same, then there is no disclosure or suggestion of driving the print cylinders.

Thus, Kishine et al fails to disclose the feature of

actively driving an impression roller, as defined in the present claimed invention, that is, as supported by the specification, and secondly, fails to disclose or suggest the active driving of both the impression roller and print cylinder.

It should be observed that the invention specifically relates to gravure printing. In gravure printing, however, it is common practice that only the print cylinder is actively driven, while the impression roller or back pressure roller idles and is only driven indirectly by the web passing through the nip between the print cylinder and the back pressure roller. (Page 1, lines 8 to 11 of the present application). Kishine et al is just another example of this prior art, where only the print cylinder is driven, but not the back pressure roller or impression cylinder.

It is therefore concluded that the concept of the invention, according to which back pressure roller or impression roller is also actively driven, in addition to the print cylinder, is not disclosed or even remotely suggested by Kishine et al, and therefore involves an inventive step.

Claim 5 previously recited the step of actively driving the impression roller. Also, in the preamble of claim 5, the print cylinder was recited as a driven print cylinder.

However, to make this distinction clearer, claim 5 has been amended to recite the additional step of "actively driving the print cylinder of the at least one additional printing unit."

Thus, claim 5 now recites the steps of actively driving both the impression roller and the print cylinder.

Accordingly, it is respectfully submitted that the rejection of claim 5 under 35 U.S.C. §102(b), has been overcome.

Claim 8 was rejected under 35 U.S.C. §103(a) as being obvious from Kishine et al in view of U.S. Patent No. 5,740,054 to Durr et al.

The remarks previously made above in regard to Kishine et al are incorporated herein, and are therefore not repeated.

Durr et al was merely cited for teaching the step of "regulating, during start-up, the rotational speed of the print cylinder in the at least one additional printing unit by an optical sensor."

However, Durr et al fails to cure the aforementioned deficiencies of Kishine et al. Thus, there is no disclosure or even a remote suggestion in Durr et al of actively driving both the impression roller and print cylinder.

Accordingly, it is respectfully submitted that the rejection of claim 8 under 35 U.S.C. §103(a), has been overcome.

Allowable Subject Matter

Acknowledgment is made of the allowable subject matter of claims 6, 7 and 9-12.

In this regard, claims 6 and 9 have been written in independent form. Claim 11 depends from claim 9. It is therefore submitted that claims 6, 9 and 11 are in condition for allowance.

The remaining claims 7, 10 and 12, which were indicated as containing allowable subject matter, depend from claim 5. It is submitted that these claims are allowable for the same reasons given above in regard to claim 5.


If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

In the event that this Paper is late filed, and the necessary petition for extension of time is not filed concurrently herewith, please consider this as a Petition for the requisite extension of time, and to the extent not tendered by check attached hereto, authorization to charge the extension fee, or any other fee required in connection with this Paper, to Account No. 07-1524.

The Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 07-1524.

In view of the foregoing amendments and remarks, it is respectfully submitted that Claims 5-12 are allowable, and early and favorable consideration thereof is solicited.

Respectfully submitted,


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